



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0084; Project Identifier MCAI-2020-01312-A; Amendment 39-22012; AD 2022-08-09]

RIN 2120-AA64

Airworthiness Directives; Pilatus Aircraft Ltd. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Pilatus Aircraft Ltd. (Pilatus) Model PC-24 airplanes. This AD was prompted by a failure of the dual ethernet communication channel on a dual-channel data concentration and processing unit, which triggered the opening of electronic circuit breakers that caused several unintended system activations. This AD requires installing a software (SW) upgrade to the utility management system (UMS), as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For EASA material incorporated by reference in this final rule, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu; website: www.easa.europa.eu. You may find the EASA material on the EASA website at <https://ad.easa.europa.eu>. For service information identified in this final rule, contact Pilatus Aircraft Ltd., CH-6371, Stans, Switzerland; phone: +41848247365; email: techsupport.ch@pilatus-aircraft.com; website: <http://www.pilatus-aircraft.com/>. You may view this material at the FAA, Airworthiness

Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110. Service information that is approved for IBR is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0084.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0084; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the EASA AD, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Doug Rudolph, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 901 Locust, Room 301, Kansas City, MO 64106; phone: (816) 329-4059; email: doug.rudolph@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2020-0200, dated September 21, 2020 (EASA AD 2020-0200), to correct an unsafe condition on Pilatus Model PC-24 airplanes, all serial numbers. EASA AD 2020-0200 was prompted by a report that, during climb, a Model PC-24 airplane experienced a dual ethernet communication channel failure on a dual-channel data concentration and processing unit. The failure triggered the opening of electronic circuit breakers, which led to degradation of environmental control system functionalities, the deployment of all passenger oxygen masks, and the autopilot entering into emergency descent mode. According to EASA, various crew alerting system messages were displayed and the functionality of other systems (such as flaps, fuel indication, and the ice protection system) was significantly degraded.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Pilatus Model PC-24 airplanes. The NPRM published in the *Federal Register* on February 3, 2022 (87 FR 6087). The NPRM was prompted by the failure of the dual ethernet communication channel on a dual-channel data concentration and processing unit identified in EASA AD 2020-0200. The NPRM proposed to require installing a SW upgrade to the UMS, as specified in EASA AD 2020-0200.

The FAA is issuing this AD to prevent failure of the dual ethernet communication channel on a dual-channel data concentration and processing unit. The unsafe condition, if not addressed, could result in increased pilot workload and reduced control of the airplane.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

These airplanes have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA notified the FAA about the unsafe condition described in the EASA AD. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. This AD is adopted as proposed in the NPRM.

Related Service Information under 1 CFR Part 51

The FAA reviewed EASA AD 2020-0200, which specifies upgrading the UMS SW and prohibits installing an earlier version of the SW. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Other Related Service Information

The FAA reviewed Pilatus PC-24 Service Bulletin No. 42-010, dated January 21, 2020. This service information contains procedures for upgrading the UMS SW to Build 7.3.

Differences Between This AD and the EASA AD

Where EASA AD 2020-0200 requires compliance after its effective date, this AD requires using the effective date of this AD. Where EASA AD 2020-0200 prohibits the installation of an affected part “from the effective date” of EASA AD 2020-0200, this AD requires using “as of the effective date of this AD.” Although the service information referenced in EASA AD 2020-0200 specifies reporting information to the manufacturer, this AD does not include that requirement.

Costs of Compliance

The FAA estimates that this AD affects 42 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

Estimated costs

Action	Labor Cost	Parts Cost	Cost per airplane	Cost on U.S. operators
Install SW upgrade to UMS	8 work-hours x \$85 per hour = \$680	\$5,000	\$5,680	\$238,560

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022-08-09 Pilatus Aircraft Ltd.: Amendment 39-22012; Docket No. FAA-2022-0084; Project Identifier MCAI-2020-01312-A.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Pilatus Aircraft Ltd. Model PC-24 airplanes, all serial numbers, certificated in any category.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 2200, Auto Flight System; 2400, Electrical Power System; 3140, Central Computers (EICAS); 3500, Oxygen System; and 4500, Central Maint, Computer.

(e) Unsafe Condition

This AD was prompted by a failure of the dual ethernet communication channel on a dual-channel data concentration and processing unit, which triggered the opening of electronic circuit breakers that caused several unintended system activations. The FAA is issuing this AD to prevent failure of the dual ethernet communication channel on a dual-channel data concentration and processing unit. The unsafe condition, if not addressed, could result in increased pilot workload and reduced control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) For Group 1 airplanes as defined under the “Definitions” section in European Union Aviation Safety Agency AD 2020-0200, dated September 21, 2020 (EASA AD 2020-0200): Install the build 7.3 standard software upgrade to the utility management system software in accordance with paragraph 1 and the “Ref. Publications” section of EASA AD 2020-0200, except you are required to comply within 30 days after the effective date of this AD. After updating the software, do not install on that airplane utility management system software that is earlier than version 7.3.

(2) For Group 2 airplanes as defined under the “Definitions” section in EASA AD 2020-0200: As of the effective date of this AD, do not install utility management system software that is earlier than version 7.3 on any airplane.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (i) of this AD and email to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/ certificate holding district office.

(i) Related Information

For more information about this AD, contact Doug Rudolph, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 901 Locust, Room 301, Kansas City, MO 64106; phone: (816) 329-4059; email: doug.rudolph@faa.gov.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2020-0200, dated September 21, 2020.

(ii) [Reserved]

(3) For EASA material identified in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email:

ADs@easa.europa.eu; website: www.easa.europa.eu. You may find the EASA material on the EASA website at <https://ad.easa.europa.eu>.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110. This material may be found in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0084.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on May 3, 2022.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2022-09815 Filed: 5/9/2022 8:45 am; Publication Date: 5/10/2022]